
Sample Setup

To use Call Accounting for effective call data processing and reporting, you should follow a series of steps to initially set up its databases. Once this setup has been completed, you can use Call Accounting to collect call records, calculate costs and generate reports.

The following sample setup has been provided to assist you to initially set up your own Call Accounting databases and start a data collection. It contains the basic steps required to connect to the Meridian 1, collect and cost call records, enter a telephone configuration and generate reports.

Note: This sample setup assumes that you have already installed Call Accounting onto a PC as part of MAT. If you have not already done so, then install Call Accounting before proceeding.

CAUTION

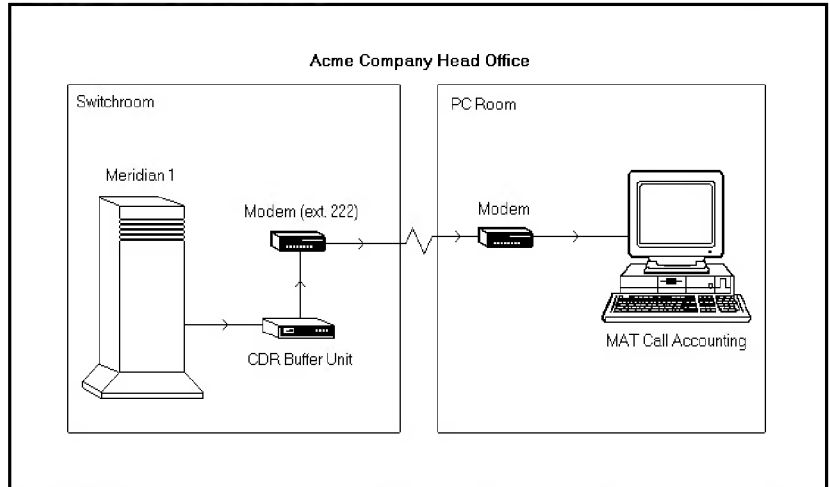
This sample setup is intended to be only an example of how to set up your configuration when running Call Accounting. The configurations, trunks and rate tables listed in this setup are only examples. When setting up your own configuration, you must enter your own company's configuration and rate information.

Scenario

This sample setup is based on the following scenario:

- The company Acme Company Ltd. is located in Dallas, Texas. The telephone number for the head office is **(214) 655-1111**. It has a branch office in Houston with the telephone number **(713) 455-1111**. The main node in Dallas is also connected to a Virtual Private Network (VPN).
- The name of this site is **Acme Company** and the system is **Head Office**. These have already been created using the System Configuration function of MAT Common Services.
- There are 16 members (trunks) on the main location's Meridian 1. These are configured as follows:
 - **Route 0** has five (5) members (trunks) **1 to 5** for regular long distance service (DDD). These have access code **9**.
 - **Route 1** has two (2) members **1 and 2** for incoming calls using the company's 800 service and do not require access codes. These are output as trunks 1001 and 1002.
 - **Route 2** has two (2) members **1 and 2**. These trunks use a Tie Line service and have access code **8**. These are output as trunks 2001 and 2002.
 - **Route 3** has seven (7) members **1 to 7**. These are connected to a Virtual Private Network (VPN) with location codes **220, 221 and 222** and have access code **7**.
- The Meridian 1 is located in the switch room of the Acme Company head office. It requires a CDR buffer unit to be connected to it to collect CDR data. A modem is attached to this CDR buffer unit to allow for communications between it and a PC in another room. It has a dedicated extension number 222.
- The PC on which Call Accounting is installed is located in another room of the same building. A modem is attached to this PC's COM1 port and will be used to connect to the CDR buffer unit attached to the Meridian 1 and collect the CDR data from it.
- Acme wishes to report on toll calls only when generating reports. In addition, they wish to collect local calls which are to be summarized for each extension.

Figure 18
Sample Setup schematic



Before you define the telephone configuration for this scenario, you must have previously added a site and system to the MAT Navigator and assigned Call Accounting to the system. When Call Accounting is assigned to a system, a distinct set of files will be created to store its data in its directories and databases (e.g., Customer Directory, Billing Database, Call Database, Communications Database and Telephone Configuration Database). Refer to the *MAT Common Services User Guide* for complete details on how to enter system information and assign Call Accounting to a system.

The following set of steps outline the input required to complete this example. For more details on these functions and commands, access on-line Help from Call Accounting.

Summary of Steps

The following list summarizes the steps which will be discussed in this chapter.

- 1** Install CDR buffer unit
 - a** Steps for CDR buffer unit connection
 - b** Notes for direct connection

- 2 Open Site & System
- 3 Run Call Accounting
- 4 Test Data Collection
- 5 Enter Telephone Configuration
 - a Create Location Book for VPN
 - b Enter Call Type Definitions
 - c Select Reporting Options
 - d Define Carrier Pricing Templates
 - e Enter Telephone Configuration
- 6 Test Telephone Configuration
 - a Print report
 - b Review Exception/Chronological Report
- 7 Follow-up procedures
 - a Update databases
 - b Set up operating schedule

Step 1: Install CDR buffer unit

In this sample setup, a CDR buffer unit is used to collect call records from the Meridian 1's CDR port. Therefore, the first step is to connect and install the CDR buffer unit onto the Meridian 1. It can then collect and store call records as they are output from the Meridian 1. You must then connect the PC to the buffer unit to collect the call records from the buffer unit to the Call Accounting database files. In this example, you would configure and connect modems to the buffer unit and the PC.

Steps for CDR buffer unit connection

Perform the following steps to install and connect the CDR buffer unit to the Meridian 1.

- 1 Locate the CDR port on the Meridian 1 and ensure that the Meridian 1 is configured to output CDR records.
- 2 Plug in and turn on the CDR buffer unit as instructed in the user documentation provided with it.
- 3 Test the CDR buffer unit to ensure that it collects according to its instructions. Check its commands and displays to ensure that it responds.
- 4 Connect the PC on which Call Accounting is installed to the CDR buffer unit. You can connect the PC to the CDR buffer unit either directly (using an RS232 cable) or through a modem connection (using a null modem cable). This example requires a modem connection between the PC and the CDR buffer unit. Therefore, plug one modem into the CDR buffer unit with the null modem cable and the other at the configured communications port (COM1) of the PC.

The operation of the CDR buffer units which are supported by Call Accounting may vary. You should therefore refer to the documentation provided with your CDR buffer unit for complete details on installing and connecting it.

Direct connection

If your configuration requires that you collect call records directly from the Meridian 1 to the PC without a CDR buffer unit, then connect the PC to the Meridian 1 either through line drivers or using a direct connection (e.g., using an RS232 cable).

Step 2: Open Site & System

Before you run Call Accounting, you must first run the MAT Navigator and open this site and system. You can then select Call Accounting from the Telemanagement menu in this system's window.

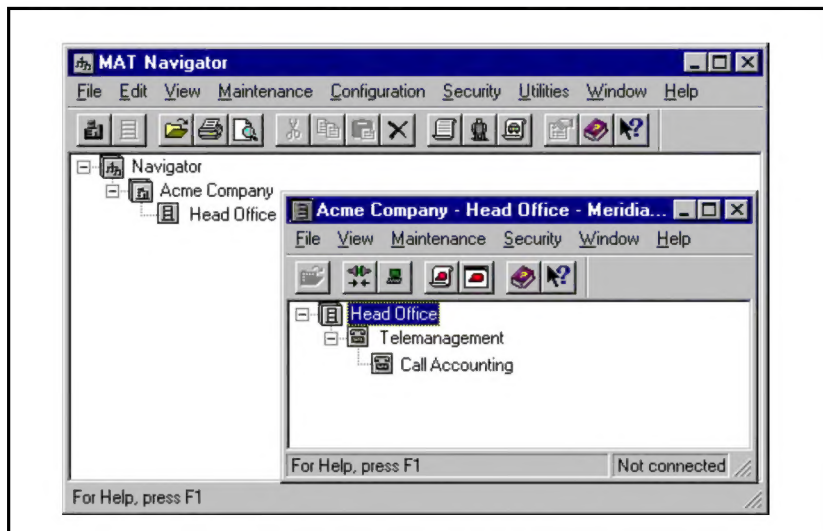
Note: The system Head Office must already have been created using the System Configuration function. Refer to the *MAT Common Services User Guide* for more details on the System Configuration function.

Perform the following steps to open the site and system for this example.

- 1 Run the MAT Navigator by clicking the **MAT Navigator** icon. At the Login dialog which appears, enter your user ID and password and click **OK** to continue.
- 2 To open the site for this example, click **Acme Company** in the MAT Navigator window.
- 3 To open the system for this example, click **Head Office** from this site.

This will access the system window for Head Office.

Figure 19
MAT Navigator Site/System



Step 3: Run Call Accounting

Once you have opened this system, you can then run Call Accounting to test the data collection, enter your configuration information and generate reports.

To run Call Accounting, open the system Head Office from the site Acme Company and click the **Telemanagement** menu item. This will display the MAT applications which have been assigned to the system Head Office under **Telemanagement** (e.g., Call Accounting, Call Tracking and Traffic Analysis). To run Call Accounting, double-click **Call Accounting** from this menu.

If Call Accounting has not been assigned to this system, it will not appear in the **Telemanagement** menu. To assign Call Accounting to this system, perform the following steps.

- 1 Click **Properties** from the File drop-down menu to access the System Properties dialog.
- 2 From the System Properties dialog, first enter a communications profile for Call Accounting by clicking the **Communications** tab. In the Communications Profile field, enter a profile for Call Accounting.
- 3 Click the **Applications** tab to assign Call Accounting to this system. From the Communications Profile drop-down list box, select the communications profile which you just entered in the Communications tab. Click **Call Accounting** in the Applications list box to highlight it and turn on the **Enable** check box. Notice that a check mark will appear next to Call Accounting in this list box.
- 4 Click **OK** to assign Call Accounting to this system. The Call Accounting icon will appear in the **Telemanagement** menu for the system **Head Office**.

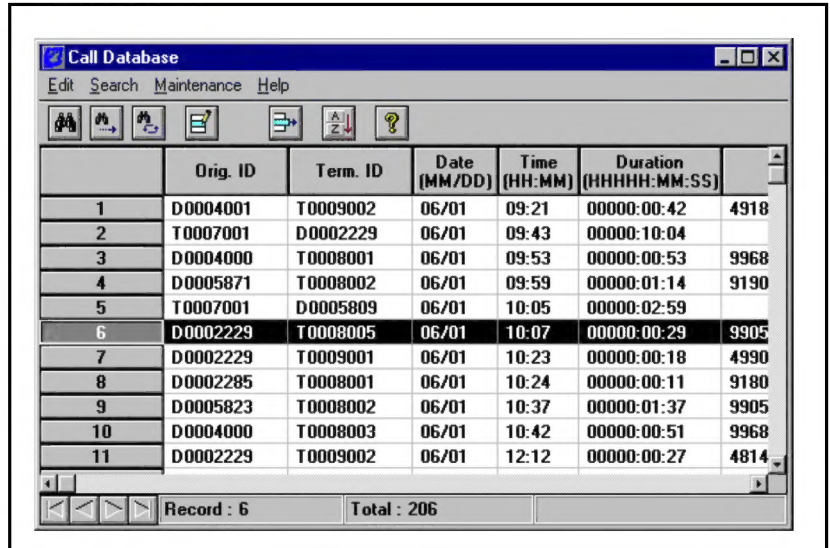
Step 4: Test data collection

Before you enter a configuration for this system, you should verify that the CDR buffer unit is collecting data from the Meridian 1 in the correct format. To do so, collect the call records from the CDR buffer unit and view them in the Call Database window.

To test this data collection, perform the following steps.

- 1 Wait for some calls to be recorded by the Meridian 1. Either wait for some calling activity on the switch or make a few telephone calls for this test. If the CDR buffer unit is properly connected to the Meridian 1, it will collect and store these call records as they are recorded by the Meridian 1.
- 2 Use the Communications Database to verify the communications parameters for the CDR buffer unit. These parameters would have previously been defined in the System Configuration application.
- 3 Turn on the **Collect** and **Index** check boxes to have Call Accounting collect the call records from the CDR buffer unit to the Detail file (DETAIL1.DAT) and index them to the Call Database (MDR1.DAT) during the data collection process.
- 4 Select the appropriate script for your system (refer to the *Common Services User Guide* for more details on which scripts are required for specific configurations).
- 5 Start the data collection by clicking **Data Collection** from the Communications drop-down menu.
- 6 Once this data collection is complete, view the Call Database (MDR1.DAT) to verify that these call records are in the correct format. To view the Call Database, click **Call Database** from the Utilities cascading menu of the Database drop-down menu. The Call Database dialog will appear listing the call records which were just collected.
- 7 Review the call records for any invalid fields. For example, check the trunks, access codes and digits dialed for invalid values. As well, check the call records' dates and times to ensure that they match the date and time on the Meridian 1.

Figure 20
Call Database



The screenshot shows a window titled "Call Database" with a menu bar (Edit, Search, Maintenance, Help) and a toolbar with icons for file operations, search, and help. Below the toolbar is a table with 7 columns: a blank header, "Orig. ID", "Term. ID", "Date [MM/DD]", "Time [HH:MM]", "Duration [HHHHH:MM:SS]", and a blank header. The table contains 11 rows of data. Row 6 is highlighted. At the bottom of the window, there are navigation buttons and a status bar showing "Record : 6" and "Total : 206".

	Orig. ID	Term. ID	Date [MM/DD]	Time [HH:MM]	Duration [HHHHH:MM:SS]	
1	D0004001	T0009002	06/01	09:21	00000:00:42	4918
2	T0007001	D0002229	06/01	09:43	00000:10:04	
3	D0004000	T0008001	06/01	09:53	00000:00:53	9968
4	D0005871	T0008002	06/01	09:59	00000:01:14	9190
5	T0007001	D0005809	06/01	10:05	00000:02:59	
6	D0002229	T0008005	06/01	10:07	00000:00:29	9905
7	D0002229	T0009001	06/01	10:23	00000:00:18	4990
8	D0002285	T0008001	06/01	10:24	00000:00:11	9180
9	D0005823	T0008002	06/01	10:37	00000:01:37	9905
10	D0004000	T0008003	06/01	10:42	00000:00:51	9968
11	D0002229	T0009002	06/01	12:12	00000:00:27	4814

Once you have reviewed the call records and ensured that they are valid, then you can proceed to the next steps in this sample.

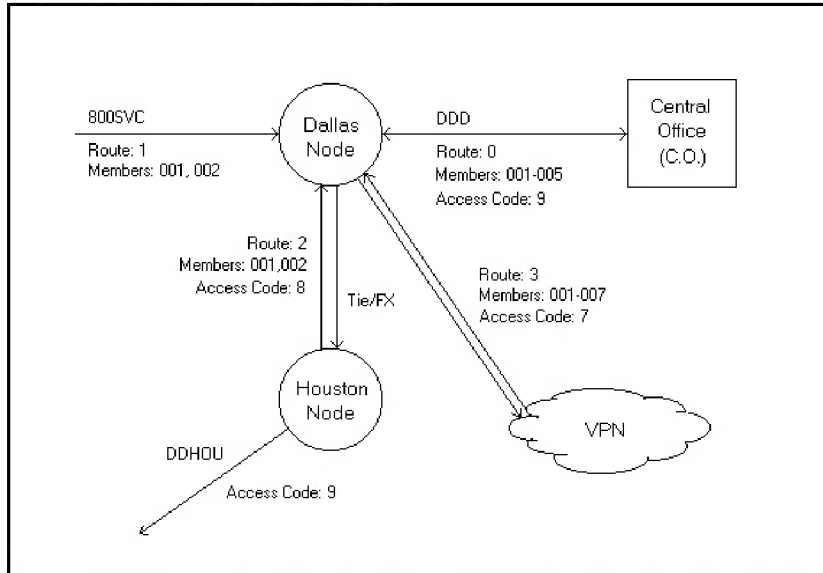
Step 5: Enter Telephone Configuration

The Telephone Configuration Database provides the main costing structure for the call records collected from the Meridian 1.

Note: This telephone configuration is only an example. When setting up your own configuration, you must enter your own company's configuration and rate information.

The following schematic outlines the trunk configuration for this setup. This was described in the Scenario section of this chapter.

Figure 21
Trunk configuration schematic



There are several steps involved in entering a telephone configuration for this scenario. These are itemized into the following main steps:

- Create Location Book for VPN
- Enter Call Type Definitions
- Select Reporting Options
- Define Carrier Pricing Templates
- Enter Telephone Configuration

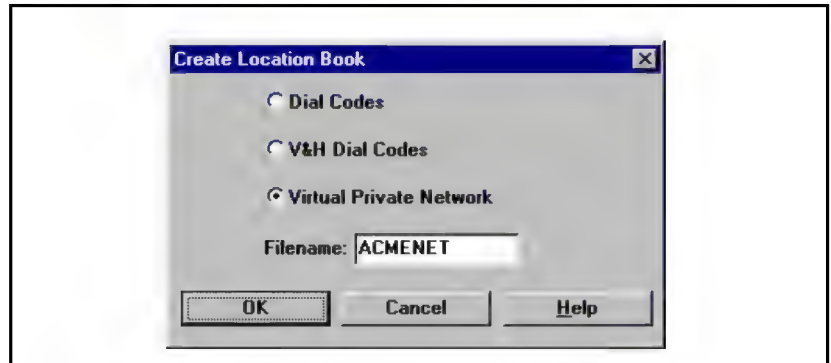
Create Location Book for VPN

In this scenario, the main node is connected to a virtual private network (VPN) which is not associated with any predefined location books. You must therefore create a new location book to allow for costing in this VPN.

To create a VPN table and add it to the Location Book Registry, perform the following steps.

- 1 Click **Location Books and Rate Tables** from the Database drop-down menu and click **Location Book**. The Location Book Registry dialog will appear.
- 2 From the Location Book Registry dialog, add a new location book by clicking **Create Book**.
- 3 From the Create Location Book dialog which appears, click **Virtual Private Network**. In the Filename field, enter: **ACMENET** (the VPN filename without the LBK extension). Click **OK** to save this information.

Figure 22
Create Location Book



- 4 The Virtual Private Network grid window will then appear allowing you to add the range of digits for the location codes 220 to 222.

For the location code 220, click **Insert** from the Edit drop-down menu and enter the following information:

Low Range: **2200000**

High Range: **2209999**

Actual NPANXX: **214655**

Leave the Location field blank and click **OK** to add this VPN range of digits. This range indicates the location on the VPN where 220 is the location code and 0000 to 9999 represents the extension.

- 5 Repeat this step for the location code 221 by clicking **Insert** from the Edit drop-down menu and entering the following information:

Low Range: **2210000**

High Range: **2219999**

Actual NPANXX: **214455**

Leave the Location field blank and click **OK** to add this range of digits.
- 6 Repeat this step for the location code 222 by clicking **Insert** from the Edit drop-down menu and entering the following information:

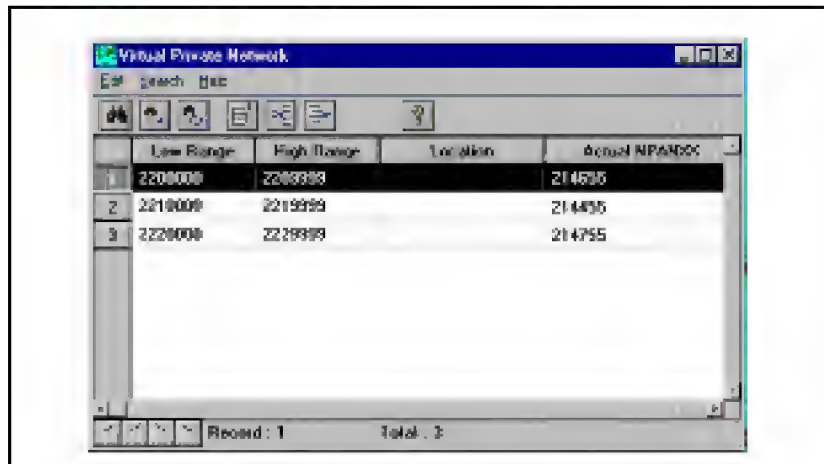
Low Range: **2220000**

High Range: **2229999**

Actual NPANXX: **214755**

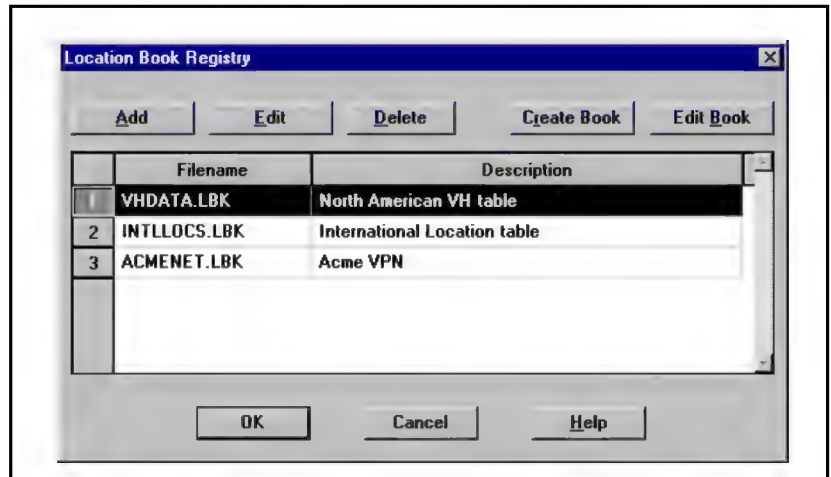
Click **OK** to add this VPN range of digits.
- 7 At a blank Virtual Private Network dialog, click **Cancel** to save this information and exit to the Virtual Private Network grid dialog. Notice that the grid will be updated with the digit range for this VPN.

Figure 23
Virtual Private Network grid



- 8 Click **Close** from the Edit drop-down menu to exit to the Location Book Registry dialog.
- 9 To add the location book ACMENET.LBK, click **Add** from the Location Book Registry dialog. The Location Book Selection dialog will appear.
- 10 From the Filename drop-down menu, select the filename which you entered in the Filename field in the previous step with the extension .LBK. For this example, enter: **ACMENET.LBK**.
- 11 In the Description field, enter: **Acme Virtual Network**. Click **OK** to select it. This location book will be added to the Location Book Registry grid. Click **OK** to save it and exit to the main window.

Figure 24
Location Book Registry



This completes the steps for creating this VPN location book. Select this location book when you are defining the carrier pricing template for the VPN (later section).

Enter Call Type Definitions

The Call Type Definitions function contains a list of types of calls which will be used by the Telephone Configuration Database.

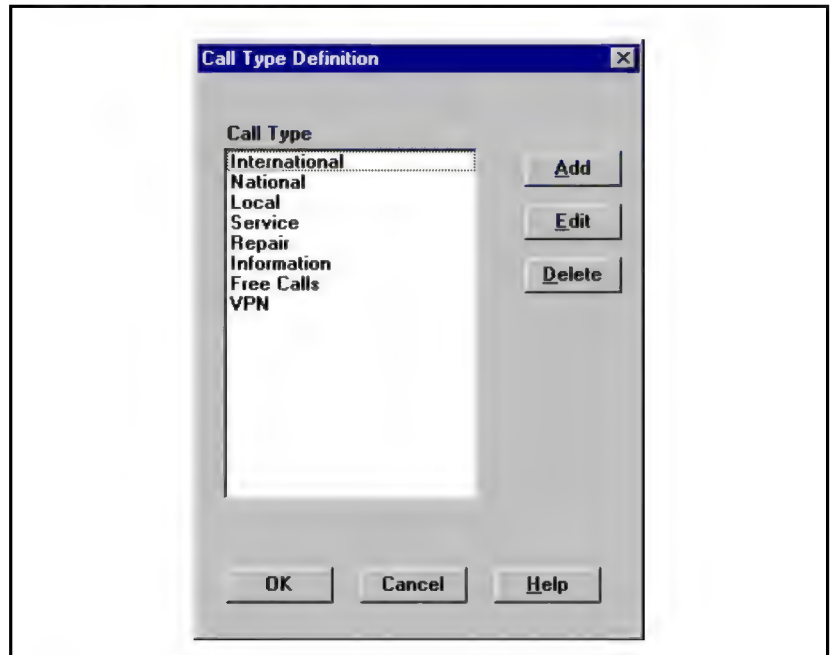
To enter the required call type definitions, perform the following steps.

- 1 From the Database drop-down menu, click **Location Books and Rate Tables** and click **Call Type Definition** from its cascading menu.
- 2 Add the following call types by clicking **Add** and entering the call type in the Call Type field:
 - International
 - National
 - Local
 - Service
 - Repair
 - Information
 - Free Calls
 - VPN

Click **OK** to add each new call type to the list.

- 3 Click **OK** from the Call Type Definition dialog to save these changes and exit to the main window.

Figure 25
Call Type Definition



Select Reporting Options

Before you enter your telephone configuration, you must first define the cost fields which will appear on your reports. These cost fields directly link the reported summary fields to the defined services in the Telephone Configuration Database.

To enter the reporting options for this scenario, perform the following steps.

- 1** Click **Reporting Options** from the Database drop-down menu.
- 2** Enable the following options by turning on their check boxes:
 - Include Account Calls
 - Export Other Billable Items
 - Include Auth. Code Calls
 - Banner Page on Reports
 - Tax Summary on Reports

Even though these do not apply to the telephone configuration, they provide the basic reporting features of your detail and summary reports.

- 3** To list the totals in the summary fields of the detail reports, enter the following information in the Cost Summary Fields:

Field 1: MDDD	Field 2: 800SV	Field 3: Network
Field 4: HDDD	Field 5: [blank]	Field 6: [blank]

- 4 Leave the Bottom Line Message on Reports fields set to the default values (e.g., **Reviewed By:** _____ **Approved By:** _____).

Figure 26
Reporting Options

- 5 Click **OK** to save this information.

Define Carrier Pricing Templates

The Carrier Pricing Template files contain the criteria which determine the type and cost of a call. This information is based on the digits dialed after call digit translation. The Telephone Configuration Database uses these templates to provide costing for your various services.

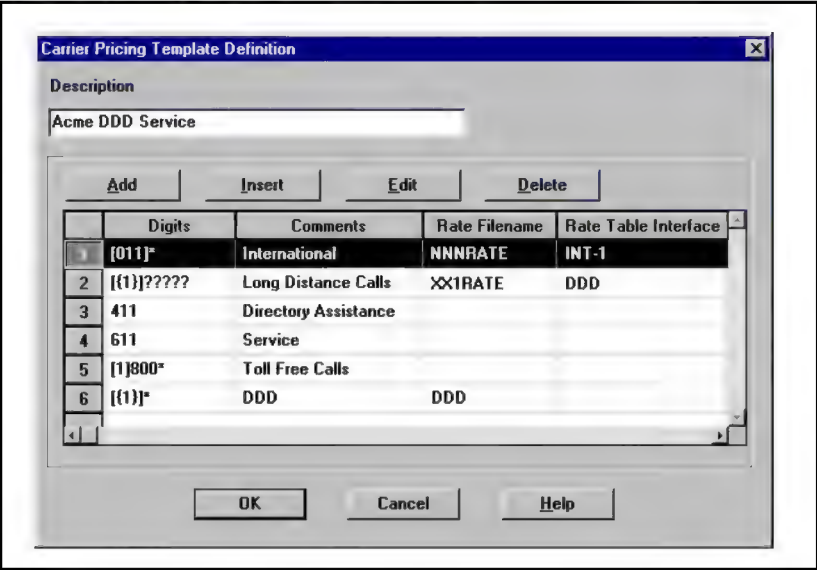
Each template can be defined from the Carrier Pricing Templates editor. For this example, you will need to define two templates: one using a regular DDD service with multiple pricing definitions, and another using the location book defined for virtual private networks.

Carrier Pricing Template—Acme DDD Service

To enter the pricing definitions for the first Carrier Pricing Template, perform the following steps.

- 1 Click **Location Books and Rate Tables** from the Database drop-down menu and click **Carrier Pricing Templates** from its cascading menu.
- 2 Enter the pricing definitions by clicking **Add**. The Carrier Pricing Template Definition editor will appear with the default template for North America.
- 3 In the Description field, enter: **Acme DDD Service**.

Figure 27
Carrier Pricing Template



Enter pricing definitions

The remaining steps will describe how to enter the pricing definitions for the Acme DDD Service. These will allow the templates to interpret calls which contain selected digit patterns and then cost them accordingly.

For this example, you will create pricing definitions for the following types of calls:

International Calls	Toll Free Calls
Directory Assistance Calls	Long Distance Calls
Service Calls	Local Calls

Note: The order in which these pricing definitions are entered is importation. For example, you will enter the local calls pricing definition last. This way, its digit pattern (“*”) will only match the calls which have been first processed using the other pricing definitions. If the local calls pricing definition had been entered first, then its digit pattern would match all calls (without being processed by the other pricing definitions). Therefore, all calls would be priced as local calls.

- 1 For International Calls, click **Add** from the template dialog and enter the following information:

Digit Patterns: **[011]***

Comments: **International**

Location Book: **International Location Codes** (International location table)

Rate Filename: **NNNRATE** (where NNN represents the carrier for these calls)

Rate Table Interface: **INT-1**

Call Type: **International**

Initial: **60**

Additional: **60**

Leave the remaining fields blank (they are not required for this example) and click **OK**.

Figure 28
Pricing Definition

The screenshot shows a 'Pricing Definition' dialog box with the following fields and values:

- Digit Patterns: [011]*
- Comments: International
- Location Book: International Location table
- Rate Filename: NNNRATE (with an Edit button)
- Rate Table Interface: INT-1
- VDP Interface: (empty)
- Rate Table Comments: International Rates (30,6)
- VDP Comments: Rate Discount Service
- Cost per Minute: 0.00
- Call Type: International
- Cost per Pulse: 0.00
- Cost per Call: 0.00
- Cost Adjustment (%): 0.00
- Duration Rounding (Seconds):
 - Initial: 60
 - Additional: 60

At the bottom are buttons for OK, Cancel, and Help.

- For Directory Assistance Calls, click **Add** and enter the following information:

Digit Patterns: **411**

Comments: **Directory Assistance**

Location Book: **North American VH Table**

Cost per Call: **0.60**

Call Type: **Information**

Leave the remaining fields blank (they are not required for this example) and click **OK**.

- 3 For Service Calls, click **Add** and enter the following information:

Digit Patterns: **611**

Comments: **Service**

Location Book: **North American VH Table**

Call Type: **Service**

Initial: **60**

Additional: **60**

Leave the remaining fields blank (they are not required for this example) and click **OK**.

- 4 For Toll Free Calls, click **Add** and enter the following information:

Digit Patterns: **[1]@800@???-????*;[1]@888@???-????***

Comments: **Toll Free Calls**

Location Book: **North American VH Table**

Call Type: **Toll Free**

Initial: **60**

Additional: **60**

Leave the remaining fields blank (they are not required for this example) and click **OK**.

- 5 For Long Distance Calls, click **Add** and enter the following information:

Digit Patterns: **[1]@???@???-????***

Comments: **DDD**

Location Book: **North American VH Table**

Rate Filename: **NNNRATE**

Rate Table Interface: **DDD**

Call Type: **National**

Initial: **60**

Additional: **60**

Leave the remaining fields blank (they are not required for this example) and click **OK**.

- 6 For Local Calls, click **Add** and enter the following information:

Digit Patterns: *****

Comments: **Local Calls**

Location Book: **North American VH Table**

Call Type: **Local**

Initial: **60**

Additional: **60**

Leave the remaining fields blank (they are not required for this example) and click **OK**.

- 7 Click **OK** from this dialog to save this information and exit to the Carrier Pricing Templates grid.

This completes the entries for this template's pricing definitions. The next step is to enter the definitions for the virtual private network.

Carrier Pricing Template—Acme VPN

To enter the pricing definitions for this Carrier Pricing Template, perform the following steps.

- 1 From the Carrier Pricing Templates grid, click **Add**. The Carrier Pricing Template Definition editor will appear.
- 2 In the Description field, enter: **Acme VPN**

Enter pricing definitions

The remaining steps will describe how to enter the pricing definitions for the Acme VPN template. These will allow the templates to interpret calls which contain selected digit patterns and then cost them accordingly.

For this example, you will create pricing definitions for the following types of calls:

- VPN Calls
- Other Calls

Note: The order in which these pricing definitions are entered is importation. For example, you will enter the Other Calls pricing definition last. This way, its digit pattern (“*”) will only match the calls which have been first processed using the VPN pricing definition. If the Other Calls pricing definition had been entered first, then its digit pattern would match all calls (without being processed by the VPN pricing definition).

- 1 For VPN Calls, click **Add** from the template dialog and enter the following information. Assume a cost per minute of \$0.08.

Digit Patterns: **???-????**

Comments: **VPN Calls**

Location Book: **Acme VPN**

Cost per Minute: **0.08**

Call Type: **VPN**

Leave the remaining fields blank (they are not required for this example) and click **OK**.

- 2 For Other Calls, click **Add** and enter the following information:
Digit Patterns: *
Comments: **Other Calls**
Location Book: **North American VH Table**
Call Type: **VPN**

Leave the remaining fields blank (they are not required for this example) and click **OK**.
- 3 From the Carrier Pricing Template dialog, click **OK** to save this template and return to the main window.

This completes the entries for these templates' pricing definitions. The next step is to enter the telephone configuration for this scenario.

Enter Telephone Configuration

The Telephone Configuration Database is the key to pricing calls and tracing them to their destinations. It defines the type of costing used by each trunk route/member (e.g., DDD, Tie Line) and includes any additional costs defined by your system. Each defined service uses predefined location books and rate tables based on the data supplied by your telecommunications carrier. You can review the current trunk route/member numbers by viewing the Index File.

To access the Telephone Configuration Database, click **Telephone Configuration** from the Database drop-down menu.

Define Internal Calls

If your system applies costs to internal calls (i.e., calls made between extensions within the Meridian 1), then you must enter these costs in the Internal Calls Costing section of the Telephone Configuration Database.

Add main node - Dallas

The first step in entering this telephone configuration is to define the main node. From the Telephone Configuration grid, click **Add** and enter the following general information.

- 1 In the Company Name field, enter: **Acme Company Ltd.**
- 2 In the Company Location field, enter: **Dallas, Texas**
- 3 Turn on the Main Node check box.
- 4 From the Location Book Name drop-down list box, select: **North American VH Table**
- 5 In the Dial Code/NPANXX field, enter: **214655**
- 6 Click **OK** to save this information and exit to the Telephone Configuration dialog.

Note: Frequently, the **OK** command button will appear at the bottom of a data entry grid when you initially add data. As well, you may encounter the **Close** command button in the same grid when editing data. You can use both the **OK** and **Close** command buttons to enter the added or updated data and exit from the data entry grid.

Figure 29
Main Node definition

Node Information

General Information

Company Name:

Company Location:

☒ Main Mode +/- Time Zone: Currency Exchange:

Location Book

Location Book Name: Dist Code/NRMDCC:

Defined Services

Trunk Group/Service ID	Description

Before you define the actual services for this main node (in the Defined Services grid of this dialog), you must first define any other Tie nodes which will connect to it (i.e., Houston node).

Add second node - Houston

This scenario requires that a second node in Houston be connected to the main node in Dallas. To add this second node to the telephone configuration, click **Add** from the Telephone Configuration grid as you did in the previous step.

From the Node Information dialog, enter the following information:

- 1 In the Company Name field, enter: **Acme Company Ltd.**
- 2 In the Company Location field, enter: **Houston, Texas**
- 3 Since you have already defined the previous record in this grid as the main node, leave the Main Node check box blank.
- 4 There is no time zone difference for this node. Therefore, in the +/- Time Zone field, enter: **0**
- 5 Similarly, there is no currency exchange for this node. Therefore, in the Currency Exchange field, enter: **1**
- 6 From the Location Book drop-down list box, select: **North American VH Table**
- 7 In the Dial Code/NPANXX field, enter: **713455**
- 8 Click **OK** to save this information and exit to the Telephone Configuration dialog.

This completes the entries for the general information of this node. Before you attempt to enter its service definition, you should return to the main node's record and enter its service definition. This will allow for the second node's Tie Line services to be assigned to the main node first.

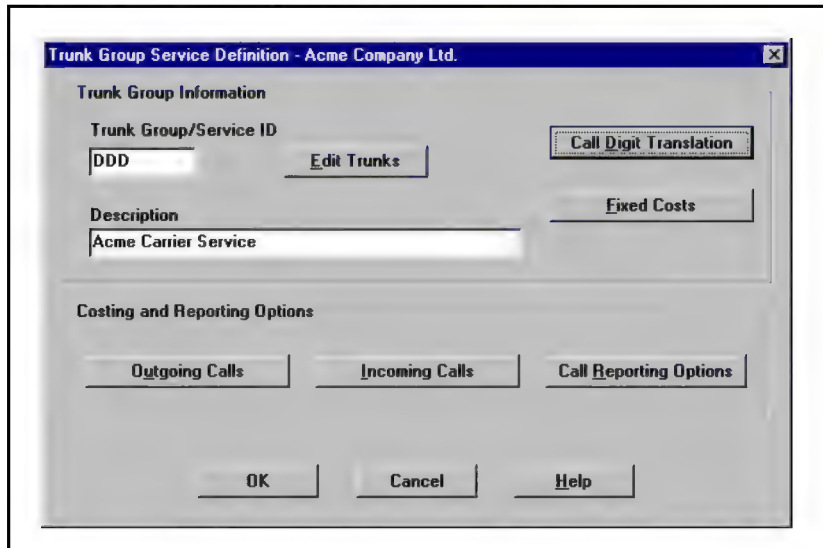
Add DDD service definition to main node

Add the first service definition to the main node by performing the following steps.

- 1 From the Telephone Configuration grid, edit the Main Node record by highlighting its record line in the grid and by clicking **Edit**.

- 2 In the Defined Services grid, click **Add** to add the main node's service definition information. The Trunk Group Service Definition dialog will appear.

Figure 30
Trunk Group Service Definition



The screenshot shows a dialog box titled "Trunk Group Service Definition - Acme Company Ltd." with a close button (X) in the top right corner. The dialog is divided into several sections:

- Trunk Group Information**: This section contains a "Trunk Group/Service ID" field with the text "DDD" entered. To the right of this field is an "Edit Trunks" button. Further right is a "Call Digit Translation" button.
- Description**: Below the ID field is a "Description" field containing the text "Acme Carrier Service". To the right of this field is a "Fixed Costs" button.
- Costing and Reporting Options**: This section contains three buttons: "Outgoing Calls", "Incoming Calls", and "Call Reporting Options".
- Buttons**: At the bottom of the dialog are three buttons: "OK", "Cancel", and "Help".

- 3 In the Trunk Group/Service ID field, enter: **DDD**

- 4 Click **Edit Trunks** and then **Add** and enter the following information:

Low Range: **1**

High Range: **5**

Line/Description: **DDD Trunks**

This will add the route 0 members 001 to 005 to this node.

Trunk range data is entered as the route number immediately followed by the three digit member number. For the low range trunk entry, this would be '0' + '001' (or '0001'). Since leading zeros can be ignored, simply enter **1**.

Click **OK** to save this information and click **Cancel** to exit to the Trunk Numbers grid. Click **Close** to exit to the Trunk Group Service Definition dialog.

- 5 In the Description field, enter: **Acme Carrier Service**
- 6 Define the costing for outgoing calls by clicking **Outgoing Calls**.

Figure 31
Outgoing Calls Costing

The screenshot shows a software window titled "Outgoing Calls Costing - Acme Company Ltd.". It contains two main sections for configuring call costing.

Connect Time Adjustment: This section has buttons for "Add", "Insert", "Edit", and "Delete". Below these buttons is a table with the following data:

	Origin	Comments	Minimum Call Duration	Connect Time
	011	International Calls	10	5

Access Code Carrier Costing: This section has buttons for "Add", "Insert", "Edit", and "Delete". Below these buttons is a table with the following data:

	Access Code	Carrier Pricing Template	Cost Adjustment (%)

At the bottom of the window are "Close" and "Help" buttons.

- 7 Enter the connect time adjustment (the call's connection time to the trunk) by clicking **Add** from the Connect Time Adjustment grid.
- 8 In the Digits field, enter: **011***. The system will interpret all calls starting with the digits 011 (International Calls) and apply the appropriate connect time adjustments.
- 9 In the Comments field, enter: **International Calls**
- 10 In the Minimum Call Duration field, enter: **10**. This is the minimum amount of time (in seconds) which the call must register for it to be costed.
- 11 In the Connect Time field, enter: **5**. This is the time (in seconds) which the system allows for a connection. This will be subtracted from the call duration.
- 12 Click **OK** to add this record to the grid.
- 13 Repeat steps 7-12 for digit patterns '1*' (long distance calls) and '*' (other calls). Ensure that the pattern '*' is the last entry in the grid. Click **Cancel** to exit to the Outgoing Calls Costing dialog.

Note: If these trunks have answer supervision, then you do not need to enter a connect time adjustment value. You can therefore ignore steps 7-12.

- 14 Enter the access code carrier costing information by clicking **Add** from the Access Code Carrier Costing grid. Enter the following information:

Access Code: **9**

Connection Type option button: **Direct**

Carrier Pricing Template: **Acme DDD Service**

Leave the remaining fields blank (they are not required for this example) and click **OK**.

Click **Close** to save this information. Click **Close** again to exit to the Trunk Group Service Definition dialog.

- 15 Enter the call reporting options for this trunk service by clicking **Call Reporting Options**. To add a record, click **Add** and enter the following information:

Call Type: **All Calls**

Print Option: **Detail**

Cost Field: **DDD**

Route DES: **DDD**

Digits Mask: **0**

- 16 Click **OK** to save this information and click **Cancel** to exit to the Call Reporting Options grid. The grid will automatically be updated with this information. Click **Close** to exit to the Trunk Group Service Definition dialog.

This completes the first defined service (DDD) for the main node. Click **OK** from the Trunk Group Service Definition dialog to save this information and exit to the Node Information dialog.

Add 800 service definition to main node

The main node contains a trunk group with an 800 service. Add this service definition to the main node by performing the following steps.

- 1 Click **Add** to add another service definition record to the Service Definition grid.
- 2 In the Trunk Group/Service ID field, enter: **800SV**
- 3 Click **Edit Trunks** to define the range of trunks which use this node's services. Click **Add** and enter the following information:

Low Range: **1001**

High Range: **1002**

Line/Description: **800 Incoming Trunks**

This will add the route 1 members 001 to 002 to this node. Click **OK** to save this information and click **Cancel** to exit to the Trunk Numbers grid. Click **Close** to exit to the Trunk Group Service Definition dialog.

- 4 In the Description field, enter: **800 Incoming Service**

- 5 To define the incoming calls for this service, click **Incoming Calls** and enter the following information:

Connection Type option button: **Direct**

Carrier Pricing Template: **Acme DDD Service**

Click **Close** to save this information and exit to the Trunk Group Service Definition dialog again.

- 6 Enter the call reporting options for this service by clicking **Call Reporting Options**. From the Call Reporting Options grid which appears, click **Add**.

Enter the following information in this dialog:

Call Type: **All Calls**

Print Option: **Detail**

Cost Field: **800SV**

Route DES: **800**

Digits Mask: **0**

- 7 Click **OK** to save this information and click **Cancel** to exit to the Call Reporting Options grid. The grid will automatically be updated with this information. Click **Close**.

This completes the updates for this service. Click **OK** from the Trunk Group Service Definition dialog to save this information and exit to the Node Information dialog.

Add Tie Line service definition to main node

The next step is to add the definition for a Tie Line service to the main node. To cost a Tie Line service, perform the following steps.

- 1 Click **Add** from the Defined Services grid of the Node Information dialog. This will access the Trunk Group Service Definition dialog.
- 2 In the Trunk Group/Service ID field, enter: **Tie**

- 3 Click **Edit Trunks** to define the range of trunks which use this node's services. Click **Add** and enter the following information:

Low Range: **2001**

High Range: **2002**

Line/Description: **Tie Trunks**

This will add the route 2 members 001 to 002 to this node. Click **OK** to save this information and click **Cancel** to exit to the Trunk Numbers grid. Click **Close** to exit to the Trunk Group Service Definition dialog.
- 4 In the Description field, enter: **Tie Trunks to Houston**
- 5 Enter the fixed costs for this Tie Line service by clicking **Fixed Costs**. These costs will apply to all calls. In the All Calls Cost per Month field, enter: **200.00**
- 6 Click **Close** to save this information and exit to the Trunk Group Service Definition dialog.
- 7 Define the costing for any outgoing calls from this trunk group by clicking **Outgoing Calls**.
- 8 Click **Add** from the Access Code Carrier Costing grid and enter the following information:

Access Code: **8**

Connection Type option button: **Tie/FX Line**

Tie Node Location: **Acme Company Ltd. - Houston, Texas**

Click **OK** from this dialog to save this information and return to the Outgoing Calls Costing dialog.
- 9 Since this service does not require any connect time adjustments, leave its grid blank.
- 10 Click **Close** from this dialog to return to the Trunk Group Service Definition dialog again.
- 11 Define the costing for any incoming calls for this trunk group by clicking **Incoming Calls**.

- 12 Enter the following information:
Connection Type option button: **Tie/FX Line**
Tie Node Location: **Acme Company Ltd. - Houston, Texas**
Leave the remaining fields blank and click **Close**.
- 13 Enter the call reporting options for this trunk group by clicking **Call Reporting Options**. In the Call Reporting Options grid which appears, click **Add** and enter the following information:
Call Type: **All Calls**
Print Option: **Detail**
Cost Field: **NETWORK**
Route DES: **TIE**
Digits Mask: **0**
- 14 Once you have entered this information, click **OK** to save it and return to the Call Reporting Options grid. Click **Close**.

Add VPN service definition to main node

The next step is to add the definition for a VPN service to the main node. To enter this service, perform the following steps.

- 1 Click **Add** from the Defined Services grid of the Node Information dialog. This will access the Trunk Group Service Definition dialog.
- 2 In the Trunk Group/Service ID field, enter: **VPN**
- 3 Click **Edit Trunks** to define the range of trunks which use this node's services. Click **Add** and enter the following information:
Low Range: **3001**
High Range: **3007**
Line/Description: **VPN Trunks**
This will add the route 3 members 001 to 007 to this node. Click **OK** to save this information and click **Cancel** to exit to the Trunk Numbers grid. Click **Close** to exit to the Trunk Group Service Definition dialog.
- 4 In the Description field, enter: **VPN Trunks**

- 5 Define the costing for any outgoing calls from this trunk group by clicking **Outgoing Calls**.
- 6 Click **Add** from the Access Code Carrier Costing grid and enter the following information:
Access Code: **7**
Connection Type option button: **Direct**
Carrier Pricing Template: **Acme VPN**
Click **OK** from this dialog to save this information and return to the Outgoing Calls Costing dialog.
- 7 Since this service does not require any connect time adjustments, leave its grid blank.
- 8 Click **Close** from this dialog to return to the Trunk Group Service Definition dialog again.
- 9 Enter the call reporting options for this trunk group by clicking **Call Reporting Options**. In the Call Reporting Options grid which appears, click **Add** and enter the following information:
Call Type: **All Calls**
Print Option: **Detail**
Cost Field: **NETWORK**
Route DES: **VPN**
Digits Mask: **0**
- 10 Once you have entered this information, click **OK** to save it and return to the Call Reporting Options grid. Click **Close**.

This completes the entries for the service definitions of the main node. Click **OK** to save this trunk group information and exit to the Node Information dialog. Click **Close** to save the node information and exit to the Telephone Configuration dialog.

Add DDD service definition to Houston

The next step in setting up the telephone configuration is to define the services for the second site (Houston). To enter this information, double-click the record line for the Houston node in the Telephone Configuration grid (already created in a previous step).

Click **Add** in the Defined Services grid and perform the following steps.

- 1 In the Trunk Group/Service ID field, enter: **DDHOU**
- 2 In the Description field, enter: **DDD Service for Houston Node**
- 3 Do not enter any fixed costs for this service.
- 4 Enter the details for any outgoing calls from this node by clicking **Outgoing Calls**.
- 5 Define the connection time adjustments for this node by clicking **Add** from the Connect Time Adjustment grid and entering the following information:

Digits: **011***

Comments: **International Calls**

Minimum Call Duration: **10**

Connect Time: **5**

Click **OK** to save this information. Repeat this step for digit patterns '1*' (long distance calls) and '*' (other calls). Ensure that the pattern '*' is the last entry in the grid. Click **Cancel** to exit to the Outgoing Calls dialog.

- 6 Enter the access code carrier costing information by clicking **Add** in the Access Code Carrier Costing grid and entering the following information:

Access Code: **9**

Connection Type option button: **Direct**

Carrier Pricing Template: **Acme DDD Service**

Click **OK** to save this information.

- 7 Click **Close** to save this information and exit to the Trunk Group Service Definition dialog.

- 8 Define the call reporting options for this trunk group by clicking **Call Reporting Options** from the Trunk Group Service Definition dialog.
- 9 In the Call Reporting Options grid dialog which appears, click **Add**. Enter the following information:

Call Type: **All Calls**

Print Option: **Detail**

Cost Field: **HDDD**

Route DES: **HDD**

Digits Mask: **0**
- 10 Click **OK** to save this information and click **Cancel** to exit to the Call Reporting Options dialog. Click **Close** to save this information and exit to the Trunk Group Service Definition dialog. Click **OK** to exit to the Node Information dialog.
- 11 From the Node Information dialog, click **Close**.
- 12 From the Telephone Configuration dialog, click **OK** to save this node information and exit to the main window.

This completes the steps to entering a telephone configuration for this sample setup.

Step 6: Test Telephone Configuration

Once you have entered the telephone configuration, you should test it by generating a costing report such as the Exception/Chronological Report. This report contains calls placed in the order in which they are found in the Call Database. It displays important details about the collected and costed call records including: whether the digits were formatted properly; whether the location name and the route used are accurate; and if it was costed properly. This way, you can verify that the Telephone Configuration you just created will accurately process all future call records collected from the Meridian 1.

Print report

Perform the following steps to print the Exception/Chronological Report to the printer.

- 1 Select the printer as the output device by clicking **Select Output Device** from the File drop-down menu and clicking the **Printer** option. Click **OK** to select this output device. If you have not installed and configured a printer for Windows, then you should do so according to the documentation provided with your printer.
- 2 Print the Exception/Chronological Report to the printer by clicking **Cost Allocation** from the Reports drop-down menu and clicking **Exception/Chronological Report**. The Exception/Chronological Report dialog will appear containing the check box **Recalculate line usage for report**. Turn this check box on to recalculate the line usage and click **OK** to print the report to the output device.

Review Exception/Chronological Report

Once you have printed the report, review it to see if the collected call records were processed as expected. In particular, check the following fields.

Digits Dialed: Check the digits dialed field of each call record to verify that they represent the digits which were actually dialed. If they are incorrect, then you may need to adjust them using the Call Digit Translation function.

Location Name: Review the Location field of each call record to ensure that it is valid as it is entered in the Location Books and Rate Tables record for this configuration. If the location name is incorrect, then you may have selected an incorrect Carrier Pricing Template for this configuration.

Route Used: This field displays the type of route which this trunk group uses for costing (e.g., **DDD** as entered in the Call Reporting Options function). If the call record uses a certain trunk group and you entered a different trunk group in the Telephone Configuration, then this field may be incorrect.

Cost: This field displays any costs associated with this call such as long distance charges or any fixed costs assigned to each call. If, for example, this is an outgoing call made to a location which incurs long distance charges, then this field will display that charge. Check this cost against the telephone bill from your long distance service provider. This will ensure that the trunk groups selected for this configuration accurately represent your telephone system.

If report reflects errors

If this report does not accurately represent the call record and is inconsistent with your actual telephone usage, then your configuration may be incorrect. Access the Telephone Configuration Database again and enter the correct information. The following is an example error situation.

The Route Used fields in the Exception/Chronological Report contain the cost field name **TIEFX** only for selected call records. This is due to the fact that you entered trunks ranging from **2000** to **2001** for the Tie/FX service instead of trunks **2001** to **2002**. Only the Tie/FX calls which were made on trunk **2001** were recorded and displayed on this report; not for trunk **2002**.

To correct this error, return to the Telephone Configuration Database and from the Defined Services dialog, change the trunk range to **2001** to **2002**. This was entered in the step under *Enter Telephone Configuration*, entitled: *Add Tie Line service definition to main node*.

If report is correct

If this report indicates that these call records were processed and costed correctly, then this setup is complete.

Step 7: Follow-up procedures

Now that you have set up Call Accounting to collect and process the call records from the Meridian 1, you can update the other supporting databases to enhance the information provided in your reports. As well, you should set up a schedule of procedures to simplify the use of Call Accounting.

Update databases

The first databases which you should update are the Billing Database and Customer Directory. Call Accounting uses the data entered in the Billing Database to accumulate and assign costs by extension, department or division. The Customer Directory identifies commonly called telephone numbers on the billing reports.

Set up operating schedule

Once you have set up Call Accounting, you should define and follow a schedule which will allow you to easily manage the process of collecting call records, generating reports and updating the databases. This will facilitate the procedures involved in using Call Accounting.

Refer to *Chapter 2: Getting Started* in this user guide for a recommended schedule of activities. This will assist you in setting up your own operating procedures.